

Abstract:

A multifunctional polishing agent is prepared by mixing methyl hydrogenous silicone oil, ethanol and isopropanol. The inventive polishing agent has multiple functions, such as removing soil, being hydrophobic, brightening, antifogging, antisoiling and lens-protecting. The polishing agent according to the invention can be applied to a lens of camera, microscope, video camera and telescope, and also to a surface of other instruments and articles.

Claims:

1. A multifunctional polishing agent, characterized in that the agent is prepared by mixing methyl hydrogenous silicone oil, ethanol and isopropanol in the following weight ratio:

methyl hydrogenous siliconeoil	0.2-2%
ethanol	10-89%
isopropanol	10-89%
odor masking agent	as proper

2. The polishing agent according to claim 1, which is characterized in that a projection agent is added, wherein

Part A	40-72%
Part B	28-60%

A multifunctional polishing agent

The invention relates to a detergent, in particular to that for optical lens. The subject matter of the invention belongs to detergent field.

At present, two kinds of detergents for lens are well known. One is lens liquid having function of removing soil, while the other is lens liquid having function of antifogging and cleaning. The former detergent's disadvantage is its simple function. Though the latter is of the function of antifogging, it will not be chosen by user in consideration of its poor transmittancy unless fogging is very serious.

An object of the invention is to provide a multifunctional polishing agent, which does not only have soil removability, but also has other functions and uses, such as being hydrophobic, brightening, antifogging, antisoiling and lens-protecting, and the like.

The object is achieved by mixing methyl hydrogenous silicone, ethanol, isopropanol and the like. Methyl hydrogenous silicone generally acts as lubricant, releasing agent and the like. In the present invention, its main function is to form a bright protective film. Isopropanol acts as solvent. And ethanol in the invention is to remove soil and sterilize.

The mixture comprises: 0.2-2% methyl hydrogenous silicone, 10-89% ethanol, 10-89% isopropanol. After being mixed and agitated homogeneously, the mixture is filled to a closed container. Thus the

polishing agent is obtained. When used, the polishing agent is sprayed on the surface of lens, and then is wiped with paper. As a result, the lens will be as bright as a new one.

If a projection agent is added to the above mixture, the spraying aerosol will be achieved. The spraying aerosol can be effective by spraying it to the lens and is convenient to use. The amount of the projection agent being added generally is in the range of 28-60%. In the case, the mixture of methyl hydrogenous silicone, ethanol and isopropanol is Part A, and the projection agent is Part B.

Also, an odor masking agent (i.e., perfume) may be added to the mixture to satisfy the need of people.

The examples of two preparations are illustrated as follows.

Common type:

Example 1:

methyl hydrogenous silicone oil	0.2%
ethanol	20%
isopropanol	79.8%
odor masking agent	as proper

Example 2:

methyl hydrogenous silicone oil	1.1%
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ethanol	45%
isopropanol	43.9%
odor masking agent	as proper

Example 3:

methyl hydrogenous silicone oil	1.5%
ethanol	80%
isopropanol	18.5%
odor masking agent	as proper

Spraying type**Example 4:**

Part A: 70%

Part B: 30%

Example 5:

Part A: 60%

Part B: 40%

Example 6:

Part A: 45%

Part B: 55%

The polishing agents prepared according to the above formulations

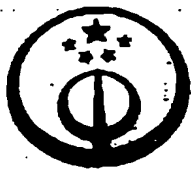
can remove oil stain from lens rapidly and completely, and additionally can form a protective film with good transmittancy. Therefore, the functions of antifogging, brightening, hydrophobicizing and antisoiling can be achieved. The accompanied drawing shows the test results when a polishing agent according to the invention is applied. The test instrument is the spectrophotometer (Model: Hitachi 330), and the quartz cell is used. The test wavelength is between 860 and 185 nm. The dash line represents the transmittancy of the cell treated with the polishing agent, and the solid line represents the transmittancy of the cell untreated. From the drawing , it can be seen that the transmittancy of the cell treated with the polishing agent is better than that untreated. Furthermore, the transmittancies in 780-860 nm and 200-380 nm are very excellent.

The polishing agent according to the invention can be applied to the lens of camera, microscope, video camera and telescope, and also to the surface of other instruments and articles.

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〔54〕发明名称 一种多功能光洁剂

〔57〕摘要

一种多功能光洁剂,它由甲基含氢硅油,乙醇,异丙醇等复配而成。本发明具有去污、防霉、上光、疏水及透光率高等多种功能,可广泛用作照相机、摄像机、显微镜、望远镜等镜头的光洁剂,也可用作各种高档设备或物品表面的清洁剂。

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权 利 要 求 书

1、一种多功能光洁剂，其特征在于，它由甲基含氢硅油、乙醇及异丙醇等复配而成，各组份按重量计百分比为：

甲基含氢硅油 0.2—2%

乙醇 10—89%

异丙醇 10—89%

气味掩盖剂 适量

2、根据权利要求1所述的光洁剂，其特征在于在其中还加入抛射剂，各组份含量为：

A组份 40—72%

B组份 28—60%

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说

明

书

一种多功能光洁剂

本发明涉及一种清洁剂，特别是专用于光学镜头的清洁剂，属洗涤剂技术领域。

目前，公知的镜头清洁剂，一种是具有去污功能的镜头水，另一种是具有清洁和防雾功能的镜头水，前者功能单一，后者虽具有防雾功能，但透光性较差，除非结雾严重，否则用户不愿使用。

本发明的目的是研制一种不仅具有去污功能，还兼具疏水，上光、防雾、防尘护镜等多种功能和多种用途的光洁剂。

本发明的目的主要是通过将甲基含氢硅油、乙醇、异丙醇等进行复配而制成的。甲基含氢硅油一般用作润滑剂、脱膜剂等，在本发明中其主要作用是在被洁表面形成一层光洁的保护膜。异丙醇的主要作用是起溶剂作用。乙醇在本发明中的作用则是去污、灭菌。

复配时，各组份的含量为：甲基含氢硅油：0.2—2%，乙醇10—89%，异丙醇10—89%。将上述原料混合在一起，搅拌均匀，装于密闭容器内，即得镜头光洁剂，使用时将其喷涂于镜头表面，用擦镜纸擦试，即令镜头光洁如新。

如在上述组份中加入抛射剂，即可制得气雾型喷剂，使用时只要向被洁镜头喷射一下即可，极为方便。所述抛射剂可采用氟利昂或液化石油气。加入量一般为28—60%，配制时，将上述包含

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甲基含氢硅油、乙醇和异丙醇的复配剂作为A组分，抛射剂作为B组份混匀在一起即可。

配置时，还可在其中加入气味掩盖剂（即香料）以适应人的感官需要。

以下给出两种剂型的几个实施例：

普通剂型：

实施例1：	甲基含氢硅油	0.2%
	乙醇	20%
	异丙醇	79.8%
	气味掩盖剂	适量

实施例2：	甲基含氢硅油	1.1%
	乙醇	45%
	异丙醇	43.9%
	气味掩盖剂	适量

实施例3：	甲基含氢硅油	1.5%
	乙醇	80%
	异丙醇	18.5%
	气味掩盖剂	适量

喷雾型：

实施例4：	A组份：	70%
	B组份：	30%

实施例5：	A组份：	60%
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B组份: 40%

实施例6: A组份: 45%

B组份: 55%

按上所述的配方制得的光洁剂, 除能迅速彻底地除去镜头上的油污外, 还能在其表面形成一层透光性极好的保护膜, 达到防霉、上光、疏水和防尘的目的, 附图展示了涂擦本发明后的测试结果。测试仪器为日本日立公司生产的330分光光度计, 被测物为石英比色皿, 采用测定波长为860—185 nm。虚线表示未用光洁剂擦试的比色皿的透光率, 实线表示用光洁剂擦试后的比色皿的透光率。由图可见, 用光洁剂擦试的透光率优于未擦试的透光率, 在近红外(780—860 nm)和近紫外(200—380 nm)光区透光率也非常好。

本发明除用于照象机、显微镜、摄象机和望远镜等镜头外, 也可用于其它高档设备或物品的表面清洁。

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说明书附图

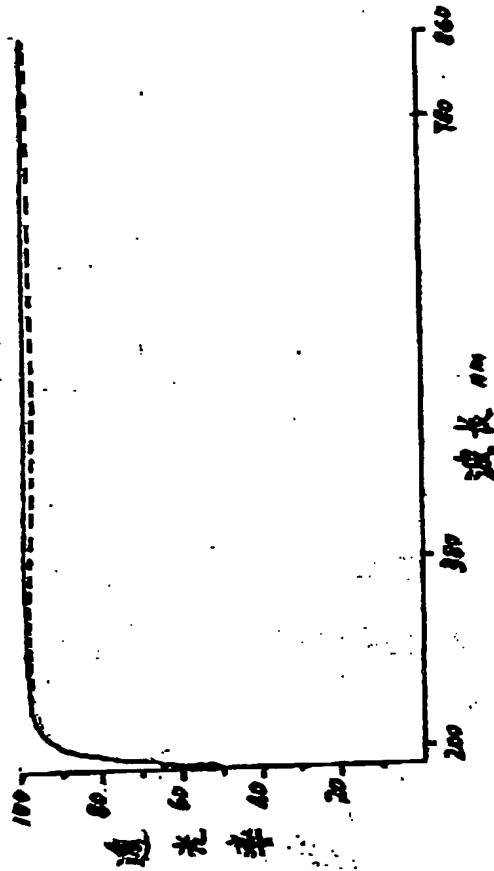


图 1